*Test Two Review-Reaction Enthalpies Chapter 11*

*Pages 368-397*

*Four ways of representing energy changes/molar enthalpy, enthalpy change, term in the balanced equation, potential energy diagram*

*Standard molar enthalpy, molar enthalpy of combustion, molar enthalpy of formation*

*Potential energy diagram of an exothermic reaction system/potential energy diagram of an endothermic reaction system*

*Molar enthalpy of formation(table in back of text), decomposition is opposite sign, Review reactions from grade 11*

*Element + element🡪 compound (formation reaction)*

*Compound🡪 element + element (decomposition reaction)*

*Hydrocarbon + oxygen gas 🡪 carbon dioxide(g) + water (g) combustion reaction*

*Hess’ Law ∆H= sum of many smaller equations*

*Change sign of ∆H when reversing equation, when multiplying, be sure to multiply all coefficients and ∆H*

*∆H for all elements in their normal state is 0, thermal stability and endothermic reactions*

*Finding ∆H from the enthalpies of formation*

*∆Hr=∑product H’s x mol –∑reactant H’s x mol*

*Nuclear reactions, relative energies of phase vs chemical vs nuclear*

*Three demands from fossil fuels, alternative sources, Marie Curie, Pierre Curie, Bequerel, Irene Joliet-Curie and Frederic*

*Multistep calculations 1)∆H given 2) find ∆H first 3) calorimetry-type*

*Nuclear power*

*FORMAT OF TEST: Multiple choice/fill in the blanks/matching/problems*

*\*\*please do not forget to read the chapter through twice\*\**